Appendix C:
Geographic Environmental Information Management System (GEIMS)
Database Entity Relationship Diagram

System Delivery/Production
Year
Type
Global ID (FK)
Assigned Name (FK)
—
January
February
March
April
May
June
July
August
September
October
November
December
Annual
Units
Wholesaler
Treatment level
Flow
Description

Gradient
Date
Global ID (FK)
Assigned Name (FK)
—
Gradient
Gradient Direction
Description

Contact Address
Organization Name
City
Contact Name
—
Organization Class
Office Name Description
Title
Address
Zip
State
Mailing Address
Mailing City
Mailing Zip
Mailing State
Mailing Address #2
Mailing City #2
Mailing Zip #2
Mailing State #2
email
Web Address
Responsiblity of Contact
Description

Phone Numbers
Organization Name (FK)
City (FK)
Contact (FK)
email (FK)
—
Phone Type
Phone Number
Extension
Description

Analytical Results
Lab Matrix
Laboratory
QC Batch
Analytical Method
QC Type
Lab Sample ID
Analyte
Units
Field Organization (FK)
Log Date (FK)
Log Time (FK)
Primary Value Code
Run Number
Alternate Sample ID* (FK)
—
Location
Project Name
Work Order Number
Control Sheet Number
Modified Parameter List
Preparation Method
Extraction Lot
Analysis Date
Preparation Date
Received Date
COC Number
Basis
Preservative
Subcontracted Laboratory
Report Date
Lab Report Number
Approved By
Test Notes
Result Notes
Parameter Value
Parameter Value Qualifier
Method Detection Limit
Reported Detection Limit
Report Detection Limit Qualifier
Parameter Uncertainty
Retention Time
Dilution Factor
Control Limit Revision Date
Standard Reference Material
Expected Parameter Value

Connections
Assigned Name (FK)
Global ID (FK)
Year
Type
—
Customer
Area
Connections
Description

Elevation
Assigned Name (FK)
Global ID (FK)
Date
—
Elevation
Datum
Survey Qualifier Method
Estimated Accuracy
Accuracy Description
Data Source
Organization
Description

Community
Assigned Name (FK)
Global ID (FK)
Community
Year
—
Population

Location Alias
Common Name
Organization
Assigned Name (FK)
Global ID (FK)
—
Date

Location
Assigned Name
Global ID
—
Class Code
Proximity
Survey Qualifier Method
Projection System
Units
Datum
X-coordinate
Y-coordinate
Estimated Accuracy
Accuracy Description
Survey Date
Data Source
Organization
Description

Location Relationship
Assigned Name (FK)
Global ID (FK)
Organization Name (FK)
City (FK)
Contact (FK)
Begin Date
—
Organizational Jurisdiction
End Date
Contact Type

Field Sample
Field Organization
Log Date
Log Time
Field Sample ID
Field QC
—
Assigned Name (FK)
Global ID (FK)
DQO ID
UPC Number
Project Number
Project Name
Sample Beginning Depth
Sample Ending Depth
Matrix
Sample Number
Sampling Method
Sample Classification
Sampling Equipment
Weather
Water Level
Field Technician
Remarks
Work Order Number
Sampling Event Number

Facility Type
Date
Class
Global ID (FK)
Assigned Name (FK)
—
End Date
Type
Primary
Description

Location Status
Begin Date
Global ID (FK)
Tracking Type
Organization
Organization Domain
Assigned Name (FK)
—
Status
End Date
Description

Location Physical Address
Assigned Name (FK)
Global ID (FK)
—
Business Name
Main Street Number
Main Street Name
Main Street Direction
Main Proximity Direction
Secondary Street Number
Secondary Street Name
Secondary Street Direction
Secondary Proximity Direction
City
County
Zip
State
Phone
Location Description

Alternate Field Samples
Field Organization (FK)
Log Date (FK)
Log Time (FK)
Alternate Sample ID*
—
Field QC (FK)
Field Sample ID (FK)
Primary Laboratory
Field Sample Type
Field Filtered
Transportation Lot
Equipment Lot

Case status
Assigned Name (FK)
Case Number (FK)
Global ID (FK)
Begin Date
—
Status
End Date
Description

Case information
Assigned Name (FK)
Case Number (FK)
Global ID
—
Case type
Enforcement Action
Funding
How Discovered
How Stopped
Interim
Leak Cause
Leak Source
Description

Case information
Assigned Name (FK)
Case Number (FK)
Global ID (FK)
Date
Substance Released
—
Quantity
Description

Remedial History
Global ID (FK)
Phase
Method
Start Date
—
End Date
Volume
Volume Units
Chemical Analyte
Concentration
Concentration Units
Description

Lithologic Interpretation
Boundary Beginning Depth
Assigned Name (FK)
Global ID (FK)
—
Boundary Ending Depth
Boundary Qualifier
Lithology Code
Visual Description
Formation Name

Boring Information
Assigned Name (FK)
Global ID (FK)
—
Temporary
Depth
Start Date
End Date

Drilling Activity
Drilling Beginning Depth
Assigned Name (FK)
Global ID (FK)
—
Drilling Ending Depth
Begin Date
End Date
Drilling Company
Driller
Field Technician
Drill Rig Type
Bit Type
Borehole Diameter
Boring Direction
Boring Angle
Weather While Drilling
Remarks

Dispenser Island
Installation Date
Assigned Name (FK)
Global ID (FK)
—
Containment
Number of Dispensers
Number of Nozzles

Top of Casing
Survey Date
Assigned Name (FK)
Global ID (FK)
Casing Diameter
—
Casing Height

Well Info
Assigned Name (FK)
Global ID (FK)
—
Total Depth
Installation Date

Casing
Casing Inside Diameter
Casing Beginning Depth
Assigned Name (FK)
Global ID (FK)
—
Installation Date
Casing Material
Height of Riser Pipe
Casing Length
Casing Type
Casing Description

Well Conductivity
Test Type
Evaluation
Assigned Name (FK)
Global ID (FK)
—
Date
Conductivity
Units
Length
Description

Tank Information
Assigned Name (FK)
Global ID (FK)
—
Start Date
End Date
Status
Capacity
Compartments
Type
Manufacturer
Primary Tank Material
Secondary Tank Material
Tank Internal Lining
Tank Corrosion
Description

Pump Data
Assigned Name (FK)
Global ID (FK)
—
Make
Type
Size
Capacity
Depth to Intake
Lubrication
Power
Auxiliary Power
Control
Waste
Discharge

Source Water Production
Beginning Date
Assigned Name (FK)
Global ID (FK)
—
Ending Date
Frequency
Production
Duration
Max Rate
Description

Water Depth
Measurement Date
Assigned Name (FK)
Global ID (FK)
—
Time
Purge Time
Purge Rate
Measure Type
Sounding
Sampler
Depth to Groundwater
Free Product
Free Product Thickness
Groundwater Elevation
Depth to Well Bottom
Description

Tank Leak Detection
Global ID (FK)
Assigned Name (FK)
Type
Start Date
—
End Date
Manufacturer
Description

Spill and Overflow
Global ID (FK)
Assigned Name (FK)
Equipment
Start Date
—
End Date
Manufacturer
Description

DHS Swap Data Collection
Assigned Name (FK)
Date Input
Global ID (FK)
—
Collector
DWR GW Basin
DWR GW Sub-basin
Floodplain
Aquifer Material
Porosity
Thickness

Tank Storage
Start Date
Assigned Name (FK)
Global ID (FK)
—
End Date
Stored Compound
Description

Tank Piping
Piping Location
Assigned Name (FK)
Global ID (FK)
Start Date
—
End Date
Manufacturer
Dispensing Mechanism
Piping Type
Piping Material
Pipe Corrosion
Description

Tank Piping Leak Detection
Type
Start Date
Assigned Name (FK)
Global ID (FK)
Detector Location
—
End Date
Manufacturer
Description

DHS Swap Well Protection
Assigned Name (FK)
Global ID (FK)
—
Access
Controlled Area
Seal Type
Seal Dimensions
Pit Depth
Drainage
Encloser Type
Encloser Condition
Encloser Floor

Screen Info
Assigned Name (FK)
Global ID (FK)
Beginning Depth
Casing Diameter
—
Ending Depth
Survey Date
Screen Type
Perforation Type
Screen Slot Size
Percent Open
Hydrologic Unit
Aquifer

Annulus Fill Material
Annulus Beginning Depth
Outer Diameter
Assigned Name (FK)
Global ID (FK)
Casing Diameter
—
Annulus Ending Depth
Annulus Material Type
Annulus Material Amount
Borehole Diameter
Annulus Fill Description

ERD-LSR-00-0081